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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,098	07/08/2003	Teunis Dekker	ISCAT-005A	8653

7590 01/09/2007
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EXAMINER

HANLEY, SUSAN MARIE

ART UNIT	PAPER NUMBER
1651	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/615,098

Applicant(s)

DEKKER ET AL.

Examiner

Susan Hanley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

The receipt of the amendment and remarks filed 9/11/06 is acknowledged.

Claims 1-48 are under examination.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Specification

The amendment filed 9/11/06 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: The specification has been amended at paragraphs [0014] and [0026] to include compounds that were not contemplated in the specification as-filed. Therefore, the amended specification now contains NEW MATTER. The structures in the indicated paragraphs have been amended such that the group that was R₂ has been amended to read R₁₂. The variable R₁₂ was not disclosed in the specification as filed.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 7, 28, 45 and 48 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claims have been amended to include compounds that were not contemplated in the specification as-filed. Therefore, the

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amended claims now contain NEW MATTER. Original claims 7 and 28 have been amended such that the group that was R_2 has been amended to read R_{12} . New claims 45 and 48 repeat the amended structures.

Applicant asserts that the replacement of R_2 by R_{12} is not NEW MATTER because, although the formula in the provisional application was also named as R_2 , an amendment to correct an obvious error does not constitute new matter where one skilled in the art would not only recognize the existence of error in the specification but also in the appropriate correct (Applicant cites *In re Oda*, Fujii, Moriga, and Higaki, 170 USPQ 268 (C.C.P.A. 1971) and the MPEP 2163.07). Applicant further argues that the claim language immediately following the formula which is directed to defining the variable R_5 to R_{12} implies and makes obvious that the formula contains such variables and since all of the other R_x variables are present in the formula. Applicant concludes that there is no discussion of an R_2 variable and one of skill in the art would recognize the error and correct R_2 to R_{12} .

Applicant's argument has been considered but is not found persuasive. Responding to Applicant's argument regarding the correction of obvious errors and invoking the MPEP and *In re Oda*, *Oda* was directed to errors for the printed names of compounds, e.g., "the most important error was that "nitric acid" was mistranslated "nitrous acid." Of less importance, "ferrous oxide" in the U. S. application should have been "iron." Thus, the comparison of the instant case, a molecular formula, compared to a written compound name is not comparable. A variable in a chemical formula can have many meanings (i.e., it can vary) while a written word has many fewer possibilities of what it may mean. Furthermore, the error in *Oda* was due to a mistake in the translation, an issue which is not a question in this application. Regarding the MPEP 2163.07, Applicant has not recited the sentence previous to that which was cited from the MPEP, "While there is no *in haec verba* requirement, newly added claim limitations must be supported in the specification through express, implicit, or inherent disclosure." As noted by Applicant, neither the instant specification, nor the provisional specification, support the idea that R_2 allegedly means R_{12} . Responding to Applicant's assertion that the ordinary artisan would recognize that R_{12} was intended, this is only one possible speculation. The skilled artisan could just as easily interpret

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that R_2 should have the meaning set forth for the variable R_2 as in the structure of claim 6, and that in the text of original claims 7 and 28, the range R_5 to R_{12} should be R_5 to R_{11} . Therefore, the replacement of R_2 by R_{12} is NEW MATTER because the variable R_{12} is not contemplated in the specification or the provisional application. Furthermore, the assertion that R_2 is obviously meant to be R_{12} is speculative at best.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-8 and 20 recite the limitation "lipid based media." There is insufficient antecedent basis for this limitation in claim 1 because claim 1 has been amended to read "artificial lipid based media" in the 4th line of the claim.

Claim Rejections - 35 USC § 103

Claims 1-6, 8-27, 29-44, 46 and 47 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Bernier et al. (6,267,953; item 9 in the IDS filed 1/5/04) in view of Braks et al. (2000).

Regarding claim 1, Applicant asserts that the claim has been modified as "...providing an artificial lipid based media ...". Applicant argues that Bernier is directed to a synergistic mixture of mosquito-attracting compounds selected from the combination of groups I and II, but Bernier does not teach that any possible mosquito-attracting compounds may be beneficially combined. Applicant asserts that Bernier does not teach or suggest combining the synergistic mixtures with microorganisms found on the skin of a vertebrate host to obtain a modified composition. Applicant agrees that Braks teaches that mosquitoes are attracted to sweat having bacteria volatile components but asserts that Braks does not identify said volatile components or which components of sweat are acted on by bacteria. Applicant

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argues that Braks teaches that the source of the attracting compounds is not absolutely known. Applicant argues that Braks does not disclose or suggest an artificial lipid based media to achieve a similar increase when combined with microorganisms. Applicant argues that it would not have been obvious to modify Braks to reach the invention of claim 1 or the dependent claims 2-19.

Responding to Applicant's argument that Bernier is directed to a synergistic mixture and does not teach the combination of combining any mosquito-attracting compounds, Applicant is directed to col. 20, lines 1-9: "The efficacy of the compositions of the present invention in attracting arthropods, may be further enhanced by adding one or more of the chemical compositions of skin washings or hair washings as disclosed in Bernier, Ph.D. dissertation, University of Florida, 1995 or Bernier, et al., Analytical Chemistry, Vol. 71, No. 1, Jan. 1, 1999. The efficacy of the compositions of the present invention in attracting arthropods, may be further enhanced by adding one or more of light, heat and moisture." Therefore, Bernier clearly provides motivation to modify the disclosed synergistic mixtures with compounds obtained from skin or hair washings in order to enhance said synergistic mixture.

Responding to Applicant's argument that Braks does not identify the volatile components in sweat or what components of sweat are acted on by bacteria, fails to absolutely identify the source of the attracting compounds, and that it would not be obvious to modify the composition of Braks, as noted *supra*, Bernier provides clear motivation to combine his synergistic mixtures with compounds derived from human skin or hair. Braks teaches that human sweat contains microorganisms and that mosquitoes are attracted to human sweat that has enhanced microbial growth and that sterilized sweat that had been incubated for some time was the most effective for attracting mosquitoes compared to non-incubated or non-sterilized sweat. Clearly Braks discloses a composition derived from skin that clearly meets the criteria from Bernier to augment the disclosed synergistic composition, that is, a composition derived from skin that attracts mosquitoes. In response to applicant's argument that Braks does not specify what compounds are contained in the human sweat or specifically what their source is, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed

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invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Responding to Applicant's argument that Braks does not disclose or suggest an artificial lipid based media to achieve a similar increase when combined with microorganisms, Bernier provides the artificial lipid based media because he teaches blends of lipids derived from carboxylic acids. Bernier is modified by adding the sweat--derived composition of Braks that contains the microorganisms. The claims do not specify that the microorganisms or their source are artificial. Furthermore, the sweat-derived product from Braks is heat-treated (sterilized) which is a non-natural treatment. Thus, the sweat-derived product is no longer entirely natural. This modified sweat product can be interpreted as "artificial."

Regarding claim 20, Applicant asserts that the claim has been modified as "...providing an artificial lipid based media ...". Applicant argues that there is no suggestion by Braks to combine an artificial based lipid media which is not attractive to mosquitoes on its own may with microorganisms in order to achieve an increased attractiveness compound. Applicant asserts that there is no motivation to combine Braks and Bernier to make the invention of claims 20 and 21.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., to combine an artificial based lipid media which is not attractive to mosquitoes on its own) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Responding to Applicant's argument that there is no motivation to combine the references, Bernier is directed to a synergistic mixture and does not teach the combination of possible any mosquito-attracting compounds, Applicant is directed to col. 20, lines 1-9: "The efficacy of the compositions of the present invention in attracting arthropods, may be further enhanced by adding one or more of the chemical compositions of skin washings or hair washings as disclosed in Bernier, Ph.D. dissertation,

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University of Florida, 1995 or Bernier, et al., Analytical Chemistry, Vol. 71, No. 1, Jan. 1, 1999. The efficacy of the compositions of the present invention in attracting arthropods, may be further enhanced by adding one or more of light, heat and moisture." Therefore, Bernier clearly provides motivation to modify the disclosed synergistic mixtures with compounds obtained from skin or hair washings in order to enhance said synergistic mixture.

Responding to Applicant's assertion that claim 20 now recites an "artificial lipid based media," this new limitation does not render the claim patentable because Bernier provides the artificial lipid based media because he teaches blends of lipids derived from carboxylic acids. Bernier is modified by adding the sweat-derived composition of Braks that contains the microorganisms. The claims do not specify that the microorganisms or their source are artificial. Furthermore, the sweat-derived product from Braks is heat-treated (sterilized) which is a non-natural treatment. Thus, the sweat-derived product is no longer entirely natural. This is modified sweat product can be interpreted as "artificial."

Applicant asserts that claims 22 and 41 have been amended to read "...providing enzymes, the enzymes being of a type excreted by microorganisms associated with a skin of the hot vertebrate..". Applicant argues that Braks does not propose the method by which incubated human sweat is more attractive to mosquitoes than non-incubated human sweat and that Braks admits that he is not sure which bacteria specie causes the action. Applicant asserts that Braks does not teach or suggest that enzymes may be isolated from the bacteria and combines with a lipids based media. Applicant asserts that Braks discloses that the odors from mammals are probably the action of a range of skin bacterial species together. Applicant argues that it would not have been obvious to modify Braks to reach the invention of claim 22 and 41, or the dependent claims 23-40 and 42, respectively.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that enzymes may be *isolated from the bacteria* (emphasis added) are not recited in the rejected claim(s). Although the claims are interpreted

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in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Responding to Applicant's argument that Braks does not propose the method by which the heat-incubated sweat becomes more mosquito-attracting than non-heat incubated sweat and that multiple skin bacteria are responsible for odors from mammals, it is unclear what these statements have to do with patentability or obviousness. 35 U.S.C. 112 requires that the disclosure of a patent teach one how to make and use the invention. Knowing precisely how something works is not a prerequisite for 35 U.S.C. 112 or 35 U.S.C. 103. To recap: Braks et al. disclose that human sweat contains microorganisms and that mosquitoes are attracted to human sweat that has enhanced microbial growth. Braks et al. discovered that sterilized sweat that had been incubated for some time was the most effective for attracting mosquitoes compared to non-incubated or non-sterilized sweat (Table 1, p. 131). Braks et al. teach that the production of compounds that are attractive to mosquitoes is probably due to the skin bacteria processing sebum substrates (p. 133, bridging column). Bacteria on the skin naturally produce extracellular enzymes and secrete compounds. This disclosure meets, in part, the remaining claims because the human sweat from the sebaceous gland contains the claimed esters, waxes and carboxylic acids which serve as substrates for the natural flora, microorganism, that exist on the skin. The microorganisms in turn excrete the enzymes that modify the excreted lipids. Thus, one of ordinary skill in the art can practice the disclosure of Braks (i.e., heat human sweat) to obtain the desired outcome (i.e., a composition that is better for attracting mosquitoes) without knowing precisely why heating improves the mosquito-attracting capability of human sweat. Braks clearly teaches that bacteria excrete enzymes. Thus, the modification of Bernier (artificial lipid based media) by the addition of Braks (heat-treated sweat) necessarily includes enzymes.

Responding to Applicant's argument that there is no motivation to combine the references, Bernier is directed to a synergistic mixture and does not teach the combination of possible any mosquito-attracting compounds, Applicant is directed to col. 20, lines 1-9: "The efficacy of the compositions of the present invention in attracting arthropods, may be further enhanced by adding one or more of the

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chemical compositions of skin washings or hair washings as disclosed in Bernier, Ph.D. dissertation, University of Florida, 1995 or Bernier, et al., Analytical Chemistry, Vol. 71, No. 1, Jan. 1, 1999. The efficacy of the compositions of the present invention in attracting arthropods, may be further enhanced by adding one or more of light, heat and moisture." Therefore, Bernier clearly provides motivation to modify the disclosed synergistic mixtures with compounds obtained from skin or hair washings in order to enhance said synergistic mixture.

Regarding claims 43, 44, 46 and 47, Applicant asserts that they are in condition for allowance and present no new matter. Applicant argues that the limitation in claims 43 and 46, "... providing a lipid selected from the group consisting of and wax aldehydes ..." differentiates the claims from Bernier because while Bernier may disclose some of these compounds in combination with another compound, he does not suggest or teach combining said compounds with microorganisms or enzymes to achieve a modified lipid composition. Applicant argues that Braks does not teach or suggest that the individual components of sweat may be isolated and combined with a lipids based media. Applicant asserts that there is no teaching or suggestion that any of the compounds recited in claims 43-48 can be used alone to achieve a modified composition to modify arthropod behavior. Applicant argues that there are too many compounds in sweat and that to try all of the compounds individually would require considerable experimentation. Applicant concludes that there is no motivation to combine the references and that the invention must be obvious and not obvious to try.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., (1) individual components of sweat may be *isolated* (emphasis added); (2) that compounds recited in claims 43-48 can be *used alone* (emphasis added); and (3) there are too many compounds in sweat and that to try all of the *compounds individually*) are not recited in the rejected claim(s). Although the claims are interpreted in light of the

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specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Responding to Applicant's argument that there is no motivation to combine the references and that the rejection is made on an obvious to try basis, Berneir is directed to a synergistic mixture and does not teach the combination of possible any mosquito-attracting compounds, Applicant is directed to col. 20, lines 1-9: "The efficacy of the compositions of the present invention in attracting arthropods, may be further enhanced by adding one or more of the chemical compositions of skin washings or hair washings as disclosed in Bernier, Ph.D. dissertation, University of Florida, 1995 or Bernier, et al., Analytical Chemistry, Vol. 71, No. 1, Jan. 1, 1999. The efficacy of the compositions of the present invention in attracting arthropods, may be further enhanced by adding one or more of light, heat and moisture." Therefore, Bernier clearly provides motivation to modify the disclosed synergistic mixtures with compounds obtained from skin or hair washings in order to enhance said synergistic mixture and there is a clear expectation of success because the compositions and Bernier and Braks are known to attract insects independently of each other.

No claim is allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing

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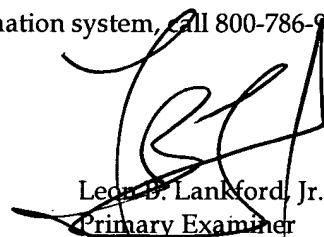
date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan Hanley whose telephone number is 571-272-2508. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Wityshyn can be reached on 571-272-0926. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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